

WHAT IS CLAIMED IS:

Claim 1: A liquid crystal display apparatus, comprising:

- main scan wiring lines;
- signal wiring lines arranged so as to intersect with the main scan wiring lines;
- a display matrix having one or more sub scan wiring lines arranged along the signal wiring lines; and
- plural pixels arranged in a column direction in an area partitioned by the main scan wiring lines and the signal wiring lines, the plural pixels being formed by plural thin film transistors (TFTs);
- a main scan circuit for selecting and driving sequentially the main scan wiring lines;
- a sub scan circuit for driving the sub scan wiring lines;
- a signal circuit for supplying an image signal to the signal wiring lines in synchronization with a main scan signal and a sub scan signal; and
- an opposed substrate power circuit for applying a voltage to an opposed electrode facing plural display electrodes and supporting a liquid crystal;
- wherein one end of a main circuit of the plural TFTs is connected to a display electrode in a corresponding pixel, and another end is connected to a signal wiring line;
- wherein at least one of gate electrodes of the plural TFTs is connected to a main scan wiring line, and remaining gate electrodes are connected to a sub scan wiring line in a row direction;
- wherein a pair of TFTs are connected to a signal wiring line and a display

electrode by a series connection, and one gate electrode of the pair of TFTs is connected to a main scan wiring line assigned to every two pixels in a row direction, and another gate electrode is connected to a sub scan wiring line assigned to a signal wiring line; and

wherein a row of pixels are selected and driven in response to the main scan signal and the sub scan signal.

Claim 2: A liquid crystal display apparatus according to claim 1, wherein three TFTs are connected in each pixel to the signal wiring lines and the display electrode by a series connection; and

wherein a main scan wiring line is provided for four rows of pixels, and the polarity of the three TFTs is defined by repetitive and cyclic use of patterns, Nch-Nch-Nch, Nch-Nch-Pch, Nch-Pch-Nch and Nch-Pch-Pch, wherein each Nch at a first one of the gate electrodes of the three TFTs is connected in common to the main scan wiring line, while, for the other two TFTs, second and third ones have their gates connected to each other, and then each is connected individually to respective ones of two sub scan wiring lines.

Claim 3: A liquid crystal display apparatus having a switching device in a display part which is driven by a signal circuit and a scan circuit, wherein the scan circuit comprises:

a main scan circuit for controlling main scan wiring lines extending in a direction intersecting with a direction of signal wiring lines extending from the signal circuit; and

a sub scan circuit for controlling sub scan wiring lines extending in a same direction as the direction of the signal wiring lines extending from the signal circuit to store signals on the signal wiring lines into the display part.

Claim 4: A liquid crystal display apparatus according to claim 3,
wherein two pixel parts are formed in each area enclosed by two adjacent ones of the main scan wiring lines and two adjacent ones of the signal wiring lines;
and
wherein each of the two pixel parts includes two TFTs.

Claim 5: A liquid crystal display apparatus according to claim 4, wherein one of the two TFTs is a TFT for the main scan circuit, and another one of the two TFTs is the TFT for the sub scan circuit.

Claim 6: A liquid crystal display apparatus according to claim 5, wherein a gate electrode for the main scan circuit is connected to one of the main scan wiring lines, and a gate electrode for the sub scan circuit is connected to one of the sub scan wiring lines.